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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,012	01/05/2004	John Pretlove	43315-201409	5513

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EXAMINER	
MARC, MCDIEUNEL	

ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/751,012	PRETLOVE ET AL.	
	Examiner	Art Unit	
	McDieunel Marc	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/27/2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 28* is/are pending in the application.

4a) Of the above claim(s) *14-27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7,8,10-12 and 28* is/are rejected.

7)☒ Claim(s) *5,6,9 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-13 and 28 are elected for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-4, 7, 8 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by **Allard** (U.S. Pat. No. **6,535,793,B2**).

As per claims 1, 4 and 12, **Allard** teaches a mobile robot which equates to a method in connection with programming of an industrial robot, comprising teaching the robot a path having

a number of waypoints located on or in the vicinity of an object (3) to be processed by the robot (see figs. 1, 3-6 and 11-14), the method comprising;

-obtaining information about the position of the waypoints in relation to the object (see figs. 3-6 and 11-14),

-storing the information about the position of the waypoints (see figs. 1 and 11-14),

-simulating the robot path based on the received information about the waypoints and a model of the robot (see figs. 1 and 11-14),

-generating a graphical representation of the robot path based on the simulated robot path (see figs. 1, 3-6 and 11-14),

-displaying a view comprising the object and said graphical representation of the robot path projected on the object (see figs. 1, 3-6 and 11-14, particularly the personal computer 210 in fig. 1);

-simulating the tool performing the process (see figs. 1, 10 and 15B, wherein the cameras being considered as tool).

As per claim 2, **Allard** teaches a mobile robot which contains the steps of:

-obtaining information about tool orientations in the waypoints (see fig. 1), and

-generating a graphical representation of the tool orientations in the waypoints (see figs. 1, 3-6 and 11-14, particularly the personal computer 210 in fig. 1 as see above).

As per claim 3, **Allard** teaches a mobile robot which contains the steps of:

-obtaining information about the process to be performed by the robot in connection with the robot path (see fig. 1),

-simulating the result of the process based upon the obtained information about the

waypoints, the obtained information about the process and a model of the process (see figs. 1, 3-6 and 11-14),

-generating a graphical representation of the simulated result of the process, and

-displaying a view showing the graphical representation of the simulated result of the process projected on the object (see figs. 1, 3-6 and 11-14, particularly the personal computer 210 in fig. 1).

As per claim 7, **Allard** teaches a mobile robot wherein the view is displayed as a function of time and it is displayed proportional to the robot movements in real-time (see col. 6, lines 24-28).

As per claim 8, **Allard** teaches a mobile robot which contains the steps of:

-receiving information about a desired speed of the displaying of the view (see col. 6, lines 24-28), and

-displaying the view in accordance with the desired speed (see col. 6, lines 24-28 and col. 7, lines 36-44).

As per claim 10, **Allard** teaches a mobile robot wherein it comprises obtaining all image of the object, registering the generated graphical representation to the image of the object to provide a composite augmented reality image and displaying said view based on the composite augmented reality image (see figs. 1, 3-8 and 10-14).

As per claim 11, **Allard** teaches a mobile robot wherein the image of the object is obtained by means of a camera (see figs. 11-14 and 15B, particularly the cameras).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Allard** in view of **Milojevic et al.** (U.S. Pat. No. **7,039,500 B2**).

As per claim 28, **Allard** teaches essential features of the invention substantially as claimed, with the exception of a robot for a paint application.

However, **Milojevic et al.** teaches a robot for a paint application (see figs. 1-3b and abstract).

Therefore, it would have been obvious to a person of ordinary skill in the art the time of the invention to modify Allard robot with that of Milojevic et al., this modification would have introduce the paint application part into Allard's robot, thereby improving the use and capability of the industrial robot.

Allowable Subject Matter

7. Claims 5, 6, 9 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior of record fail teach or fairly suggest with respect to claim 5, a mobile robot which contains the steps of simulating the quality of the result of the process based on one or a plurality of predefined quality parameters and the model of the process, and generating a graphical representation of the quality of the result of the process; with respect to claim 9, a mobile robot which contains the steps of determining whether a point on the robot path is within the working range of the robot, and notifying the operator if the point is outside the working range of the robot; and with respect to claim 13, a method further comprising the steps of obtaining information about the position of a display member in relation to the object and displaying said view in dependence of the position of the display member in relation to the object in combination with the other elements of the claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to McDieunel Marc whose telephone number is (571) 272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

THOMAS BLACK
SUPERVISORY PATENT EXAMINER

McDieunel Marc
Examiner
Art Unit 3661

Tuesday, August 08, 2006

MM/